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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,434	03/25/2004	Naoki Ota	Q180-US1	1488

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EXAMINER	
KALAFUT, STEPHEN J	

ART UNIT	PAPER NUMBER
1745	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/811,434	OTA ET AL.	
	Examiner	Art Unit	
	Stephen J. Kalafut	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-5* is/are allowed.

6)☒ Claim(s) *6-10,12-15,17,19-32 and 34* is/are rejected.

7)☒ Claim(s) *16,18 and 33* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 May 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6, 7, 9-14, 25, 26, 28, 29 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallis *et al.* (US 3,646,405) in view of Yoshida *et al.* (US 6,696,199), for reasons of record as applied to original claims 10, 14 and 29, and incorporating reasons applied to original claims 6 and 25.

Claims 8 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallis *et al.* in view of Yoshida *et al.*, as applied to claims 7 and 25 above, and further in view of Tower (US 6,111,198).

The above combination does not disclose the shaft of the pin being brazed to the insulator. Tower discloses a feedthrough with a pin having a shaft (235) that is brazed to an insulator (220). See column 6, lines 21-29. The braze material contact the head (230) of the pin (figure 2). Because this arrangement reduces cracking (column 2, lines 29-30), it would be obvious to braze the pin shaft and insulator of Wallis *et al.*, with the pin shaft and pin head forming one piece as taught by Yoshida *et al.*, according to the arrangement shown by Tower.

Claims 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Tower, for reasons of record.

The recitation that the feedthrough assembly is "for an electrochemical device" is a statement of intended use, and thus does not distinguish.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15, 17, 19, 20, 22 and 23 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Yoshida *et al.* (US 6,696,199), cited above.

Applicant has removed from claim 15 the requirement that the "bottom surface of the insulator is brazed to a top surface of said case cover". Yoshida *et al.* disclose the remaining limitations of these claims. Specifically, Yoshida *et al.* disclose a battery with a feedthrough assembly, where the assembly includes a cover (7) having a hole surface defining a hole in the cover; an insulator (6) having a hole therethrough, top and bottom surfaces, with an outer surface located within the hole in the cover; a pin shaft (4) extending through the hole in the insulator; and brazing (10) that joins the insulator outer surface to the hole surface in the cover. The pin may include a pinhead (4a) integral with the shaft (4), or a pinhead that is separate (11a). The pin may thus be one-piece or two piece. These parts are made of metal (column 2, lines 64-66, column 3, lines 4-6, and column 6, lines 7-10). The underside of the pinhead may be brazed (8a) to the top surface of the insulator (figure 9). The insulator is preferably made of alumina, a non-glass ceramic (column 6, lines 15-22). The terminal (4) is positive (column 6, line 15), and thus

would be connected to the positive electrodes within the battery, which would also include negative electrodes and an electrolyte.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida *et al.*

This claim differs from Yoshida *et al.* by reciting the diameter of the pin shaft. However, determining appropriate dimensions for battery components would be within the skill of the ordinary artisan, taking into consideration mechanical strength and effect on battery capacity. For this reason, this claim would be obvious over Yoshida *et al.*

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida *et al.* in view of Nakahara *et al.* (US 6,677,076).

This claim differs from Yoshida *et al.* by reciting that the electrodes are wound around the pin. Such an arrangement is shown by Nakahara *et al.*, who disclose a terming pin (12) that extends into the interior of their battery. As seen in figure 16b, the entire cell assembly, which would include both electrodes, is wound around the terminal pin. Because of the mechanical strength afforded by this arrangement (column 5, lines 2-4), it would be obvious to wind the electrodes of Yoshida *et al.* around their terminal pin in the manner shown by Nakahara *et al.*

Claims 16, 18 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Yoshida *et al.* do not disclose the thickness of the insulator being the same as that of region of the cover hole around the insulator, or the insulator being

brazed to the pin shaft. Applicant's arguments regarding the combinability of Tower and Yoshida *et al.* are found persuasive with respect to claim 33 because it requires the feedthough assembly be used in the production of an actual battery, and not merely the presence of a part defined only by a recitation of intended use.

Applicant's arguments filed 17 May 2007 have been fully considered but they are not persuasive.

Applicants argue that Yoshida *et al.* teaches that the "cited pin" (the one-piece pin) "provides the same function as a two-piece pin", and thus does not provide any motivation to use the "cited pin" in place of the two-piece pin", either being able to accommodate distortions. This is not persuasive because the two-piece pin of Wallis *et al.* does not provide such an advantage. Yoshida *et al.*, in either arrangement, provide an improvement over Wallis *et al.*, in the ability of a feedthrough to withstand mechanical stress, and thus motivation to use their pin.

Applicants argue that "Yoshida does teach that the cited pin has an advantage over the two-piece pin", but that this advantage, avoiding brazing between a metallic ring and a positive terminal, is already present in Wallis *et al.* This is not persuasive because this is only an advantage that both references share. This would only mean that this particular motivation, the avoidance of pin-ring brazing, is lacking in the references. However, while a motivation is required to combine references, it does not have to be any one particular motivation.

Applicant argues that Yoshida *et al.* disclose batteries, while Tower discloses semi-conductor devices, the two patents being in different fields of endeavor, and thus not analogous prior art. This is not persuasive, for claims 30-32, because applicants do not claim a battery, but

a cover "for an electrochemical device". This is a statement of intended use for the cover, and does not convey any specific type of cover structure. Battery covers may be made of a variety of materials and in a variety of shapes. Furthermore, the term "electrical device" is broader than "battery", and also includes such devices as electrolytic capacitors and condensers, each of which would also use various types of covers. Thus, the term "cover for an electrical device" cannot be given any specific weight. However, claim 33 recites that an entire battery is made, thus rendering this argument persuasive for this particular claim.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sjk

STEPHEN KALAFUT
PRIMARY EXAMINER
GROUP 1700